

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-18. (Canceled)

19. (New) A method for establishing a connection between a service requester device and a service provider device in a decentralized mobile wireless network comprising a plurality of Internet Protocol (IP) routers, each router comprising a routing table, the method comprising:

the service requester device sending a service discovery request message towards a service provider device via the plurality of IP routers;

receiving the service discovery request message by each router;

each router adding routing information pertaining to the received service discovery request message in the routing table of that router;

receiving the service discovery request message by the service provider device;

the service provider device responding to the received service discovery request message with a service discovery reply message to the service requester device; and

at least a portion of the plurality of IP routers adding routing information of the received service discovery reply message to the routing table.

20. (New) The method according to claim 19 wherein the service discovery request message is comprised of at least one element of a route request.

21. (New) The method according to claim 19 wherein the service discovery reply message is comprised of a route reply incorporating all information elements of the route reply.

22. (New) The method according to claim 19 wherein the service discovery request and service discovery reply messages are in accordance with an Ad hoc On Demand Distance Vector Routing Protocol or a Dynamic Source Routing Protocol for Mobile Ad hoc Networks.

23. (New) The method according to claim 22 wherein the Ad Hoc On Demand Distance Vector Routing Protocol or the Dynamic Source Routing Protocol of the request message and the reply message is extended such that the routing table of a router is updated with routing information after the router receives the service discovery request message or the service discovery reply message.

24. (New) The method according to claim 19 wherein the service requester device is a client and the service provider device is a server and wherein each router of the at least a portion of the plurality of IP routers adds routing information of the received service discovery reply message to the routing table of that router such that the a route is traceable from the service requester to the service provider.

25. (New) A method for establishing a connection between a service requester and a service provider in a decentralized mobile wireless network comprising a plurality of routers, each router having a routing table, the method comprising:

the service requester sending a multicast service discovery request message towards a service provider via the plurality of routers;

each router receiving the service discovery request message;

each router adding routing information pertaining to the received service discovery request message in the routing table of that router;

receiving the service discovery request message by the service provider;

the service provider responding to the received service discovery request message with a service discovery reply message in response to the service discovery request message;

a portion of the plurality of routers receiving the service discovery reply message; and

each router of the portion of the plurality of routers adding routing information pertaining to the received service discovery reply message to the routing table of that router such that a route via the portion of the routers is traceable from the service requester to the service provider.

26. (New) The method according to claim 25 wherein the service discovery request message is comprised of an indicator indicating to the routers that the routers should add routing information pertaining to the received service discovery request message to the routing tables of the routers.

27. (New) The method according to claim 25 wherein the service discovery reply message is comprised of an indicator indicating to the routers that receive the service discovery reply message that routing information pertaining to the received service discovery reply message should be added to the routing tables of the routers.

28. (New) The method according to claim 25 wherein the request message and the reply message are in accordance to an Ad hoc On Demand Distance Vector Routing Protocol or a Dynamic Source Routing Protocol for Mobile Ad hoc Networks.

29. (New) The method according to claim 25 wherein the service provider is a server and the service requester is a client.

30. (New) A decentralized mobile wireless network system, comprising:  
a network service available to a service requester;  
a plurality of Internet Protocol (IP) routers each having a routing table;  
the service requester configured to transmit a service discovery request comprised of a first routing indicator and information pertaining to a desired service,

wherein the service discovery request message is multicasted from the service requester, and

wherein each router receives the service discovery request message and updates the routing table of that router with routing information pertaining to the received service discovery request message;

a plurality of service providers configured to receive the service discovery request message from the service requester, each service provider configured to transmit a service discovery reply comprised of a second routing indicator, each service provider configured to transmit a service discovery reply message to the service requester if that service provider determines that the service provider provides a service identified in the service discovery request message, each service provider configured to send the service discovery reply message such that the network is not flooded with the service discovery reply message,

wherein at least a portion of the plurality of IP routers is configured to receive the service discovery reply message and update the routing tables of the IP routers with information pertaining to the received service discovery reply message, and

wherein the service requester is configured to receive the service discovery reply message such that a connection between the service requester and the service provider providing the service identified in the service discovery request message is established in the network.

31. (New) The system according to claim 30 wherein the portion of the routers is determined via a route determined from multicasting the service discovery request message and wherein the service requester is a client and each service provider is a server.

32. (New) The system according to claim 30 wherein the service discovery request message and service discovery reply message are in accordance to an Ad hoc On Demand Distance Vector Routing Protocol or a Dynamic Source Routing Protocol for Mobile Ad hoc Networks.

33. (New) The system of claim 30 wherein the service discovery request message is comprised of at least one element of a route request.

34. (New) The system of claim 30 wherein the service discovery reply message is comprised of a route reply.